AMENDMENTS TO THE CLAIMS

1-10. (cancelled)

11. (currently amended) A hydrofluorination catalyst based on chromium oxide which ~~is depleted in~~ **contains** ammonium salt and which exhibits a content of ammonium salts of less than or equal to 0.2% by weight, expressed in the form of NH_4^+, with respect to the content of chromium in the catalyst, expressed in the form of Cr_2O_3.

12. (previously presented) The catalyst according to claim 11, in which the content of ammonium salts is less than or equal to 0.1% by weight of ammonium salts.

13. (previously presented) The catalyst according to claim 11, additionally comprising other metals or salts of other metals and their mixtures as cocatalyst.

14. (previously presented) The process for the hydrofluorination of a halogenated hydrocarbon which comprises reacting a halogenated hydrocarbon with hydrogen fluoride in the presence of the catalyst according to claim 11.

15. (previously presented) The process according to claim 14, wherein the halogenated hydrocarbon is an aliphatic alkane corresponding to the general formula $C_wH_xX_yF_z$ (I), wherein

w is an integer between 1 and 6,

x is an integer between 0 and (2w + 1),

y is an integer between 1 and (2w + 1),

z is an integer between 0 and (2w + 1),

the sum (x + y + z) has the value (2w + 2) and

X represents chlorine or bromine.

16. (previously presented) The process according to claim 14, wherein the halogenated hydrocarbon is an aliphatic alkene corresponding to the general formula $C_wH_xX_yF_z$ (I), wherein

w is an integer between 1 and 6,

x is an integer between 0 and (2w - 1),

y is an integer between 1 and (2w - 1),

z is an integer between 0 and (2w - 1),

the sum (x + y + z) has the value 2w and

X represents chlorine or bromine.

17. (previously presented) The process according to claim 14, wherein the reaction of the halogenated hydrocarbon with the hydrogen fluoride takes place in a gas phase.

18. (previously presented) A process for the synthesis of pentafluoroethane which comprises reacting hydrogen fluoride and a compound selected from the group consisting of perchloroethylene, fluorotetrachlorethane, difluorotrichloroethane, trifluorodichloroethane and chlorotetrafluoroethane.

19. (previously presented) The process according to claim 14, wherein difluoromethane is produced by reacting hydrogen fluoride and dichloromethane.

20. (previously presented) The process according to claim 14, wherein 1,1,1,2-tetrafluoroethane is produced by reacting hydrogen fluoride and a compound chosen from trichloroethylene or 2-chloro-1,1,1-trifluoroethane.

21. (previously presented) The process according to claim 14, wherein pentafluoroethane is produced by reacting hydrogen fluoride and a compound selected from the group consisting of perchloroethylene, fluorotetrachlorethane, difluorotrichloroethane, trifluorodichloroethane and chlorotetrafluoroethane.

22. (currently amended) ~~A hydrofluorination catalyst consisting~~ **The catalyst as claimed in claim 11, which consists** essentially of bulk chromium oxide which ~~is depleted in~~ **contains** ammonium salt and which exhibits a content of ammonium salts of less than or equal to 0.2% by weight, expressed in the form of NH_4^+, with respect to the content of chromium in the catalyst, expressed in the form of Cr_2O_3.

23. (previously presented) The catalyst according to claim 22, in which the content of ammonium salts is less than or equal to 0.1% by weight of ammonium salts.

24. (previously presented) A process for the hydrofluorination of a halogenated hydrocarbon which comprises reacting a halogenated hydrocarbon with hydrogen fluoride in the presence of the catalyst according to claim 22.

25. (previously presented) The process according to claim 24, wherein the halogenated hydrocarbon is an aliphatic alkane corresponding to the general formula $C_wH_xX_yF_z$ (I), wherein

w is an integer between 1 and 6,

x is an integer between 0 and (2w + 1),

y is an integer between 1 and (2w + 1),

z is an integer between 0 and (2w + 1),

the sum (x + y + z) has the value (2w + 2) and

X represents chlorine or bromine.

27. (previously presented) The process according to claim 24, wherein the halogenated hydrocarbon is an aliphatic alkene corresponding to the general formula $C_wH_xX_yF_z$ (I), wherein

w is an integer between 1 and 6,

x is an integer between 0 and (2w - 1),

y is an integer between 1 and (2w - 1),

z is an integer between 0 and (2w - 1),

the sum (x + y + z) has the value 2w and

X represents chlorine or bromine.

28. (previously presented) The process according to claim 24, wherein the reaction of the halogenated hydrocarbon with the hydrogen fluoride takes place in a gas phase.

29. (previously presented) The process according to claim 24, wherein difluoromethane is produced by reacting hydrogen fluoride and dichloromethane.

30. (previously presented) The process according to claim 24, wherein 1,1,1,2-tetrafluoroethane is produced by reacting hydrogen fluoride and a compound chosen from trichloroethylene or 2-chloro-1,1,1-trifluoroethane.

31. (previously presented) The catalyst according to claim 11, wherein content of ammonium salts is less than or equal to 0.05% by weight.

32. (previously presented) The catalyst according to claim 22, wherein content of ammonium salts is less than or equal to 0.05% by weight.

33. (new) A method for preparing a hydrofluorination catalyst based on chromium oxide, which comprises

(a) a synthesis step for the chromium oxide,

(b) a step wherein the chromium oxide obtained according to step (a) is depleted in ammonium salts,

so as to form a chromium oxide which comprises ammonium salts, in an amount of less than or equal to 0.2% by weight in the form of NH_4+, with respect to the content of chromium in the catalyst expressed in the form of Cr_2O_3.

34. (new) The method as claimed in claim 33, which comprises (a) a pyrolysis of ammonium dichromate and step (b) comprises washing a crude chromium oxide obtained from step (a) with a washing solution until the washing solution is essentially free of ammonium ions.

35. (new) The method as claimed in claim 33, wherein the synthesis step is carried out by

(a) a reduction of chromium (IV) oxide by an alcohol or

(b) dehydration of chromium (III) hydroxide gel.

36. (new) The method as claimed in claim 33, which further comprises incorporating other metals or salts of other metals and their mixtures into the chromium catalyst.

37. (new) The method as claimed in claim 34, wherein said other metals or said salts of other metals are incorporated into the chromium catalyst by the following processes:

(a) impregnating the chromium oxide by the metal compound,

(b) co-precipitating of precursors, or

(c) by mixing and milling metal compounds in the solid form.

38. (new) The method as claimed in claim 33, which further comprising calcinating the catalyst prior to using the catalyst.

39. (new) The method as claimed in claim 38, wherein the calcination is carried out under a stream of inert gas at temperature of greater than or equal to 200^0C and less than or equal to 600^0C.

40. (new) The method as claimed in claim 38, wherein the calcination is carried out under a stream of inert gas at temperature of greater than or equal to 250^0C and less than or equal to 450^0C.

41. (new) The method as claimed in claim 38, wherein the inert gas is nitrogen, helium, argon or neon and the calcination time between 2 hours and 20 hours.

42. (new) The method as claimed in claim 38, wherein the inert gas is nitrogen and the calcination time is greater than or equal to 6 hours and less than or equal to 14 hours.

43. (new) The method as claimed in claim 38, which further comprising pretreating the catalyst with hydrogen fluoride prior to using the catalyst.

44. (new) The method as claimed in claim 43, wherein said pretreating is carried out in a reactor by passing hydrogen fluoride over the calcinated and dried chromium oxide catalyst.